

WHAT IS CLAIMED IS:

1. An e-commerce broking method for mediating commerce between a plurality of suppliers and a buyer via a digital data communication network, comprising the steps of:

5 (a) storing public data and non-public data in a database of an agent, said public data containing standardized attribute information about a product supplied by the plurality of suppliers, said public data being enable to be viewed so as to compare the attribute information about the product of the respective suppliers with each other, said
10 non-public data including transaction rules set for each combination of the respective supplier and the buyer;

(b) said buyer's reading and viewing said public data from said database via said data communication network to
15 select a desired product and to apply to the agent for a transaction of the selected product;

(c) said agent's reading the transaction rules from said non-public data, making estimates, and presenting them to the buyer, said transaction rules depending upon the buyer
20 having applied for the transaction;

(d) said buyer's determining a supplier and purchase conditions and on the basis of the estimates presented in step (c); and

(e) said agent's carrying out ordering procedures for
25 the buyer and the supplier on the basis of the purchase conditions.

2. The e-commerce broking method according to claim
1, wherein said database for the agent further stores
conversion data indicating correspondence between code
systems of different suppliers, the code system including
5 customer codes and product part numbers.

3. The e-commerce broking method according to claim
2, wherein information to be transmitted from the agent to
the buyer and the supplier is converted to information in
code systems each corresponding to the buyer or the supplier
10 on the basis of the conversion data.

4. The e-commerce broking method according to claim
1, wherein the buyer can view said public data freely in the
step (b).

5. The e-commerce broking method according to claim
1, wherein the supplier registers, updates, maintains, and
15 administers said public data stored in said database.

6. The e-commerce broking method according to claim
1, wherein the agent stores a record of the ordering
procedures in storage means whose data cannot be altered in
20 the step (e).

7. The e-commerce broking method for mediating
commerce between a plurality of suppliers and buyers via a

digital data communication network, comprising the steps of:

(a) storing public data and non-public data in a database of an agent, said public data containing standardized attribute information about a product supplied by the plurality of suppliers, said public data being enable to be viewed so as to compare the attribute information about the product of the respective suppliers with each other, said non-public data including transaction rules set for each combination of the respective supplier and the buyer;

(b) said buyer's reading and viewing said public data from said database via said data communication network to select a desired product and to apply to the agent for a transaction of the selected product;

(c) said agent's reading the transaction rules from said non-public data, making estimates, and presenting them to the buyer, said transaction rules depending upon the buyer having applied for the transaction;

(d-1) said buyer's starting negotiations with the suppliers on the basis of the estimates to determine purchase conditions and a supplier; and

(e) said agent's carrying out ordering procedures for the buyer and the supplier on the basis of the purchase conditions determined in step (d-1).

8. The e-commerce broking method according to claim 7, wherein the purchase conditions already stored in the non-public data are replaced by the purchase conditions

determined in the step (d-1).

9. The e-commerce broking method according to claim 7, wherein said database for the agent further stores conversion data indicating correspondence between code systems of different suppliers, the code system including customer codes and product part numbers.

10. The e-commerce broking method according to claim 9, wherein information to be transmitted from the agent to the buyer and the supplier is converted to information in code systems each corresponding to the buyer or the supplier on the basis of the conversion data.

11. The e-commerce broking method according to claim 7, wherein the buyer can view said public data freely in the step (b).

12. The e-commerce broking method according to claim 7, wherein the supplier registers, updates, maintains, and administers said public data stored in said database.

13. The e-commerce broking method according to claim 7, wherein the buyer determines a supplier and purchase conditions by using one of the methods of bidding conducted by the agent, individual negotiations, and an auction with the suppliers of the same products or services in the step

(d-1).

14. The e-commerce broking method according to claim 7, wherein the agent stores a record of the ordering procedures in storage means whose data cannot be altered in the step (e).

15. An e-commerce broking system for mediating commerce between a plurality of suppliers and a buyer via a digital data communication network, comprising:
a database for storing public data and non-public data, the public data being enabled to be viewed by standardizing attribute information about the same products supplied by the plurality of suppliers so as to compare the attribute information of the product with each other, and the non-public data including transaction rules set for each combination of a supplier and the buyer;

a supplier site computer connected to said digital data communication network;

a buyer site computer connected to said digital data communication network; and

an agent site computer connected to said digital data communication network,

wherein said agent site computer delivers said public data to said buyer site computer, makes estimates on the basis of said non-public data in response to an application for negotiations of the desired product from the buyer site

computer, and carries out ordering procedures.

16. A database for use in an e-commerce broking method in claim 1, wherein the database stores public data enabled to be viewed by standardizing attribute information about the same products supplied by the plurality of suppliers so as to compare the attribute information with each other and non-public data including rules conditions set for each combination of a supplier and a buyer.

17. The database according to claim 16, wherein the database further stores conversion data indicating correspondence between code systems including customer codes varying according to a supplier and product part numbers.

18. A database for use in an e-commerce broking method in claim 7, wherein the database stores public data enabled to be viewed by standardizing attribute information about the same products supplied by the plurality of suppliers so as to compare the attribute information with each other and non-public data including transaction rules set for each combination of a supplier and a buyer.

19. The database according to claim 18, wherein the database further stores conversion data indicating correspondence between code systems including customer codes varying according to a supplier and product part numbers.

20. An e-commerce broking method for mediating commerce between a plurality of suppliers and buyers via a digital data communication network, comprising the steps of:

(a) providing a database which stores public data and non-public data, said public data including standardized attribute information about the same kind of products supplied from the plurality of suppliers, and said non-public data including transaction rules set for each combination of a supplier and a buyer;

(b) presenting said public data to a buyer site computer via digital data communication network so that the buyer can compare a performance and price of the same kind of product of different suppliers to select a supplier supplying a desired product;

(c) receiving an application from the buyer site computer via the digital data communication network, the application being for transaction of the desired product of the selected supplier;

(d) reading the transaction rule set for the buyer and the selected supplier from said database, and making an estimate to send the estimate to the buyer site computer;

(e) receiving a decision from the buyer site computer via the digital data communication network, said decision containing a supplier from which the buyer purchases the desired product and purchase conditions determined on the basis of the estimate prepared in the step (d); and

(d) conducting ordering procedures for the buyer and

Figure 6. The effect of the initial concentration of the monomer (C_0) on the polymerization rate at different temperatures. The reaction conditions were as follows: $[C_{\text{cat}}] = 0.001 \text{ mol/L}$, $[C_{\text{inhib}}] = 0.001 \text{ mol/L}$, $[C_{\text{solvent}}] = 0.998 \text{ mol/L}$, $t_p = 10 \text{ min}$.